

REMARKS/ARGUMENTS

Applicants have received the Office Action dated November 29, 2007, in which the Examiner rejected claims 1-20 under 35 U.S.C. §102(e) as allegedly anticipated by Jia (U.S. Pub. No. 2003/0072395). With this Response, Applicants amend claims 1, 6, 10, 14 and 17 and cancel claim 3. Based on the amendments and arguments herein, Applicants respectfully submit that this case is in condition for allowance.

I. REJECTIONS UNDER 35 U.S.C. §102(e)

The Examiner rejected claims 1-20 under 35 U.S.C. §102(e) as allegedly anticipated by Jia. As amended, independent claim 1 requires “wherein encoding the plurality of signals comprises negating odd tones of negative frequency and even tones of positive frequency.” Jia fails to teach or even suggest this limitation. In the Office Action dated August 8, 2007, regarding this limitation, the Examiner states:

Re Claims 3, 4, 9, 13, 19, refer to Claim 1, wherein interpolation is performed in the even sub-carriers (tones) for the first transmitter and the also for the odd sub-carriers for the second transmitter (tone), wherein the band includes negative and positive frequencies.

Office Action, p. 3. Applicants respectfully submit that mere interpolation is not the same as the negation of specific tones of negative and positive frequencies, as required by claim 1. This distinction between claim 1 and Jia is significant at least because the negation scheme enables the subtraction of some tones and the addition of other tones in a received signal. The role that negation schemes play in Applicants’ invention is extensively described in Applicants’ specification (See paragraph [0023] and onward). Because Jia fails to explicitly, inherently or even implicitly disclose “wherein encoding the plurality of signals comprises negating odd tones of negative frequency and even tones of positive frequency,” as required by claim 1, claims 1-5 are patentable over Jia.

Dependent claim 4 is patentable for an additional reason. Specifically, claim 4 requires “wherein encoding a plurality of signals comprises negating even tones of negative frequency and odd tones of positive frequency.” As explained above, Jia fails to

disclose any such limitation. Thus, dependent claim 4 is patentable over Jia for this additional reason.

As amended, independent claim 6 requires “wherein said at least one signal is encoded according to the predetermined negation scheme by negating even tones of negative frequency and odd tones of positive frequency.” As explained above, Jia fails to disclose such a limitation. Thus, claims 6-9 are patentable over Jia.

As amended, independent claim 10 requires “wherein each transmitter is able to encode the set of frequency tones according to the predetermined negation scheme by negating odd tones of negative frequency and even tones of positive frequency” and “wherein each transmitter is able to encode the set of frequency tones according to the predetermined negation scheme by negating even tones of negative frequency and odd tones of positive frequency.” As explained above, Jia fails to teach or suggest any such limitation. Thus, claims 10-13 are patentable over Jia.

As amended, independent claim 14 requires “wherein the transmitted signal is encoded according to the predetermined negation scheme by negating alternating tones of negative frequency.” As explained above, Jia fails to disclose such a limitation. Thus, claims 14-16 are patentable over Jia.

As amended, independent claim 17 requires “wherein the at least one set of frequency tones is encoded according to the predetermined negation scheme by negating alternating tones of positive frequency.” As explained above, Jia fails to disclose such a limitation. Thus, claims 17-20 are patentable over Jia.

II. ADDITIONAL COMMENTS

Applicants respectfully note that the rejections in both Office Actions of record have been terse. It is difficult for Applicants to adequately respond to an Office Action when there is insufficient detail in the rejections. Applicants respectfully request that, in future Office Actions (if any), the Examiner explain his rejections in sufficient detail. For example, the Examiner is kindly requested to cite specific portions of the prior art when applicable, to refrain from grouping together claims that do not have similar limitations, and to substantiate and very clearly explain any assertions of “inherent” or “implicit”

teachings in the prior art. These measures will aid Applicants in expediting prosecution. Applicants thank the Examiner in advance for his cooperation.

III. CONCLUSION

In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the cited art which have yet to be raised, but which may be raised in the future.

Applicants respectfully request reconsideration and that a timely Notice of Allowance be issued in this case. Applicants hereby petition for any time extensions that are necessary to prevent this case from being abandoned. In the event that additional fees related to this Amendment, or other transactions in this case, are required (including fees for net addition of claims and for time extension), the Examiner is authorized to charge Texas Instruments Inc.'s Deposit Account No. 20-0668 for such fees.

Respectfully submitted,

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